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ABSTRACT

The hypothesis considered is that external evaluation of learning that a student may do for its intrinsic value may lessen the student's existing interest. Instructional movies were presented to students: in some cases students were told that they would (or in some cases, might) be tested on the contents, and in others they were not told this. The first group subsequently reported less interest in the movie topics and in allocating future class time or effort to these topics. The hypothesis was borne out, and it is also suggested that personality factors or conditions such as test anxiety, high academic ability, and the evaluation conditions may be influential. A brief list of references, tables of study results, and the pre- and posttests are appended. (MSE)

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THE EFFECTS OF EXTERNAL EVALUATION UPON THE CONTINUED MOTIVATION OF COLLEGE STUDENTS: AN ATTEMPT TO TEST MAEHR'S MOTIVATIONAL HYPOTHESIS

A presentation to the Mid-Western Educational Research Association, Friday, October 17, 1980. Peter H. Wood, College of Education, Bowling Green State University, Bowling Green, Ohio 43403.

General Background

One of the major goals of educators and educational systems is the engendering of a continued interest in learning that will persist beyond the end of a particular class, course or period of formal study. Many, perhaps most, teachers would rather that students left their classes with an increased, rather than a reduced, interest in the major topics of study.

A few years ago, Martin Maehr (1976) reviewed the research reflecting this area that he labeled "continuing motivation" (CM), and produced two major conclusions. (1) The adding of extrinsic incentives as a consequence of performing an already interesting task "does not--as common sense and some theoretical formulations suggest--increase motivation... Rather it seems to decrease it" (p. 453). (2) "To some degree, external evaluation seems to operate much as extrinsic incentives, reducing CM" (p. 453).

The investigation reported at this meeting represents an attempt to test Maehr's belief that external evaluation can function to decrease the continuing motivation to interact with an already interesting, academic area.

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The Study

The Question: The general question was: Does the imposition of external evaluation reduce continued academic motivation? In order to begin to provide a partial and tentative answer, the question was translated into: Will college students report less interest in and less willingness to interact with the content of an instructional movie if they are informed that the knowledge of the movie content may be externally evaluated and/or reflected in their course grades?

The General Procedure: The procedure included the following steps: (1) the identification of instructional movies that presented topics that were relevant to several college classes as well as rated high in interest to college students; (2) the presentation of these movies to college classes in a way that permitted a randomly selected segment of each class to be informed that they would be evaluated on their knowledge of the content of the movie--without also informing other students in the same class; and (3) the presentation and analysis of the results of post-movie measures of self-reported, continuing interest in the movie topic.

The Results: College students that had been notified that the movie topics were "very likely to appear on the next examination" subsequently reported less interest in the movie topics and less interest in allocating future class time or effort to these topics. Other students who had been notified that a post-movie questionnaire might really be a test also produced lower interest scores than did those who received neither the pre-movie nor the post movie "test-threats."

Possible Implications. The use of external evaluation procedures with interesting classroom movies--and possibly with other instructional techniques--may function to reduce the continuing interest of college students in the movie topics.

Side Issues. Maehr (1976) and others have suggested that the interest-inhibiting effects of external constraints in general and/or external evaluation in particular may be influenced by personality characteristics such as: test-anxiety (Hill, 1977), general academic ability (Sears, 1977); initial interest level (Notz, 1975; Staw, 1974; Upton, 1973); or academic motivational orientation as other-motivated or self-or-achievement motivated (Maehr & Stallings, 1972; Salili, Maehr, Sorensen & Fyans, 1976). Attempts made to test these possibilities employed the Spielberger State-Trait Anxiety Inventory (Spielberger, Gorsuch & Lushene, 1970) and a subscale of an experimental motivational scale (the ETS Goal Orientation Inventory) as measures of test-anxiety; College Grade Point Average and American College Test Composite Scores as indicators of academic ability; a self-reported interest in college as an interest measure; and two other subscales of the Goal Orientation Inventory (GOI) as indicators of other-motivated or self-achievement motivated orientations to academic motivation. None of these indicators provided convincing evidence that these factors interacted with evaluation conditions to influence continuing motivation. However, the students in the high test anxiety, high academic ability, evaluation condition cell did produce an unusually low interest score.

More detailed descriptions of two of these experiments are in the process of being submitted for publication, and the doctoral

dissertation, The Effects of Test Threat and Test Anxiety Upon the Continued Academic Interests of College Students, Peter Henry Wood (Teachers College, Columbia University, 1980) describes the most complex investigation.

References

Hill, K. T. The relation of evaluative practices to test anxiety and achievement motivation. UCLA Educator, Winter 1977, 19 (2), 15-21.

Maehr, M. L. Continuing motivation: An analysis of a seldom considered educational outcome. Review of Educational Research, 1976, 46, 443-462.

Maehr, M. L., & Stallings, W. M. Freedom from external evaluation. Child Development, 1972, 43, 177-185.

Notz, W. W. Work motivation and the negative effects of extrinsic rewards: A review with implications for theory and practice. American Psychologist, 1975, 30, 884-891.

Salili, F., Maehr, M. L., Sorensen, R. L., & Fyans, L. J. A further consideration of the effects of evaluation on motivation. American Educational Research Journal, 1976, 13 (2), 85-102.

Sears, P. S. Evaluation and motivation: A critical review. UCLA Educator, Winter 1977, 19 (2), 26-30.

Spielberger, C. D., Gorsuch, R. L., & Lushene, R. E. The State-Trait Anxiety Inventory. Palo Alto: Consulting Psychologists Press, Inc., 1970.

Staw, B. M. The attitudinal and behavioral consequences of changing a major organizational reward. Journal of Personality and Social Psychology, 1974, 29, 742-751.

Upton, W. E., III. Altruism, attribution, and intrinsic motivation in the recruitment of blood donors (Doctoral dissertation, Cornell University, 1973). Dissertation Abstracts International, 1973, 34, 6260-B. (University Microfilms No. 74-12, 652, 98 pages).

Table 1

Mean Continued Academic Interest for Four Different Conditions of Test Threat and Three Levels of Test Anxiety

For Different Test Threat Conditions			
Test Threat Conditions	Mean	SD	N
1. No Test Threat	51.5	5.8	67
2. Prior Test Threat Only	48.0	8.4	66
3. Post Instruction Test Threat Only	46.1	7.9	72
4. Both Test Threats (prior + post)	45.5	8.2	60
Total	47.8	7.9	265

For Different Levels of Test Anxiety			
Levels of Test Anxiety	Mean	SD	N
1. Low Test Anxiety	48.9	7.9	90
2. Medium Test Anxiety	47.0	9.0	85
3. High Test Anxiety	47.5	6.8	90
Total	47.8	7.9	265

For Different Conditions and for Different Anxiety Levels			
Test Threat Conditions	Mean	SD	N
Low Test Anxiety			
1. No Test Threat	50.0	5.4	23
2. Prior Test Threat Only	50.4	8.1	23
3. Post Instruction Test Threat Only	47.2	7.9	23
4. Both Test-Threats (prior + post)	47.9	9.8	21
Medium Test Anxiety			
1. No Test Threat	52.6	7.3	20
2. Prior Test Threat Only	47.3	8.6	21
3. Post Instruction Test Threat Only	45.0	9.2	24
4. Both Test-Threats (prior + post)	43.4	8.8	20
High Test Anxiety			
1. No Test Threat	52.1	4.6	24
2. Prior Test Threat Only	46.1	8.2	22
3. Post Instruction Test Threat Only	46.1	6.8	25
4. Both Test-Threats (prior + post)	45.0	4.6	19

Table 2

An Analysis of Variance for Four Conditions of Test Threat and Three Levels of Test Anxiety on Continued Academic Interest

Source of Variation	df	Mean Square	F	Significance Levels
Main Effects				
Evaluation Conditions	3	483	8.4	.001
Test Anxiety	2	79	1.4	.3
Interaction	6	67	1.2	.4
Residual Variance	253	58		

Table

Data Derived from Six, Separate 4 X 3 Analyses of the Variances of Continued Academic Interest Scores

Sources of Variance	df	Mean Squares	F	Levels of Significance
1. Main Effects	5	301	5.3	0.001
Test Threat Conditions	3	290	5.1	0.002
General Acad. Interest	2	271	4.8	0.009
Interaction	6	50	0.9	0.507
Residual	210	57		
2. Main Effects	5	216	3.8	0.002
Test Threat Conditions	3	279	4.8	0.003
College GPA	2	149	2.6	0.078
Interaction	6	89	1.5	0.165
Residual	210	58		
3. Main Effects	5	112	2.1	0.06
Test Threat Conditions	3	180	3.4	0.02
ACT Composite	2	1	0.0	0.99
Interaction	6	107	2.1	0.06
Residual	210	52		
4. Main Effects	5	254	4.4	0.001
Test Threat Conditions	3	272	4.7	0.003
GOI: Factor I	2	185	3.2	0.043
Interaction	6	33	0.6	0.76
Residual	210	58		
5. Main Effects	5	260	4.8	0.001
Test Threat Conditions	3	253	4.6	0.004
GOI: Factor II	2	200	3.7	0.028
Interaction	6	138	2.5	0.02
Residual	210	55		
6. Main Effects	5	223	3.9	0.002
Test Threat Conditions	3	341	6.0	0.001
GOI: Factor III	2	65	1.1	0.32
Interaction	6	109	1.9	0.08
Residual	209	57		

(This version of the pre-instructional questionnaire does contain the pre-movie test-threat in the "Note" after item #4 and in item #5.)

Today's Class -- Moral Development

Introduction:

Today's topic, moral development as it relates to teaching and to classroom discipline, has begun to generate an increasing amount of interest among school teachers -- especially inexperienced school teachers -- who seem to be facing increasing difficulty in maintaining classroom order but still feel very uncomfortable about the use of punishment to maintain discipline. We will begin the class by showing a new film recently purchased by the College of Education, and after asking for your opinion of the film's content, will move into a discussion of morality, the teacher's obligation and classroom discipline.

BEFORE THE MOVIE

Please answer these five questions before the movie.

1. Name_____ Soc. Sec. No._____

2. In general, should classes like this one include fewer or more movies?

None Fewer More

3. Should there be more or less whole-class discussion?

Much More More Same Fewer

4. Should there be more or fewer examinations?

Many More More Same Fewer

NOTE: The movie about to be shown presents an interesting view of several topics which are very likely to appear on the next examination. Hope you find it interesting.

5. Should movie content be reflected on class tests?

Yes No Depends

PLEASE EVALUATE THE MOVIE AND ITS CONTENT (Circle the best answer for each question.)

1. How interesting was the movie?

   1. very dull
   2. dull
   3. fairly dull
   4. faintly interesting
   5. fairly interesting
   6. interesting
   7. very interesting
   8. extremely interesting

2. How many hours (of a 40 hour course like this one) should be devoted to the topic presented in the movie?

   1. none - zero - never - ugh!
   2. probably no hours
   3. 1/2 hour or so
   4. around an hour
   5. same as today - 2 hours
   6. 3 to 4 hours (double day's)
   7. 1 to 2 weeks (4 to 8 hours)
   8. about 2 to 3 weeks
   9. half of the term or more

3. If expert speakers on these topics are locally available, should we attempt to schedule one or more this term?

   1. absolutely - without question
   2. definitely - at least one
   3. yes
   4. probably not
   5. no — prefer not
   6. absolutely not — no — no

Indicate your AGREEMENT -- or DISAGREEMENT -- with each of the following statements by circling the best response to each statement.

SA= Strongly Agree A=Agree A?=not sure, but probably agree D?=not sure, but probably disagree D=Disagree SD=Strongly Disagree

		AGREE			DISAGREE		
4.	This movie was <u>interesting</u>.	SA	A	A?	D?	D	SD
5.	<u>Less classtime</u> should be spent on the topic presented in this movie	SA	A	A?	D?	D	SD
6.	I would recommend this movie for other education students.	SA	A	A?	D?	D	SD
7.	This movie has <u>decreased</u> my curiosity about this topic.	SA	A	A?	D?	D	SD
8.	<u>Fewer</u> movies like this one should be shown in this class.	SA	A	A?	D?	D	SD
9.	If required to write a term paper, this topic is <u>worth considering</u>.	SA	A	A?	D?	D	SD
10.	If a free pamphlet (on this topic) were available, I would write for it.	SA	A	A?	D?	D	SD
11.	I'd probably attend a campus presentation dealing with this topic.	SA	A	A?	D?	D	SD
12.	Questions concerning the movie's content will probably appear on a course examination.	SA	A	A?	D?	D	SD